[10]) OE	257/780.ccls. and (mask or nonwettable or	USPAT;	2004/03/29
19	95	nonwet or (non adj wettable)) and	EPO; JPO;	14:11
		(@ad<19991110) and (fatigue or stress or	DERWENT;	14.11
		expansion or contraction)	IBM TDB	
20	60	(257/780.ccls. and (mask or nonwettable	USPAT;	2004/03/29
		or nonwet or (non adj wettable)) and	EPO; JPO;	14:11
		(@ad<19991110) and (fatigue or stress or	DERWENT;	× .
		expansion or contraction)) not	IBM TDB	
		(257/778.ccls. and (mask or nonwettable	_	
		or nonwet or (non adj wettable)) and		,
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction))		
21	101376	(@ad<19991110) and ((fatigue or stress or	USPAT;	2004/03/29
		expansion or contraction) with (direction	EPO; JPO;	14:14
		or align or aligned or oriented or orient	DERWENT;	
		or position or positioned))	IBM_TDB	
22	137	((@ad<19991110) and ((fatigue or stress	USPAT;	2004/03/29
		or expansion or contraction) with	EPO; JPO;	14:15
		(direction or align or aligned or	DERWENT;	
		oriented or orient or position or	IBM_TDB	
		positioned))) and ((pad or pads) with (mask or nonwettable or nonwet or (non		
		adj wettable)) and (@ad<19991110))		
23	131	(((@ad<19991110) and (fatigue or stress	USPAT;	2004/03/29
123	131	or expansion or contraction) with	EPO; JPO;	14:15
		(direction or align or aligned or	DERWENT;	11110
1		oriented or orient or position or	IBM TDB	
1	1	positioned))) and ((pad or pads) with	<u></u>	
		(mask or nonwettable or nonwet or (non		
		adj wettable)) and (@ad<19991110))) not		
		(257/778.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
1	1	expansion or contraction))		
24	136	(((@ad<19991110) and ((fatigue or stress	USPAT;	2004/03/29
	1	or expansion or contraction) with	EPO; JPO;	14:15
		(direction or align or aligned or	DERWENT;	
		oriented or orient or position or	IBM_TDB	
		positioned))) and ((pad or pads) with		
1		(mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110))) not		
1		((257/737.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction)) not		
		(257/778.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction)))		
25	130	((((@ad<19991110) and ((fatigue or stress	USPAT;	2004/03/29
		or expansion or contraction) with	EPO; JPO;	14:15
		(direction or align or aligned or	DERWENT;	
	1	oriented or orient or position or	IBM_TDB	
		positioned))) and ((pad or pads) with		
		(mask or nonwettable or nonwet or (non		
		adj wettable) and (@ad<19991110))) not		
		(257/778.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or		
	1	expansion or contraction))) not		
		((257/737.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction)) not		
		(257/778.ccls. and (mask or nonwettable		
İ		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction)))		
26	1500	438/\$.ccls. and ((solder or	USPAT;	2004/03/29
		interconnection or interconnect or ball	EPO; JPO;	14:18
		or bump) with (fatigue or stress or	DERWENT;	
		expansion or contraction))	IBM_TDB	

27	1500	438/\$.ccls. and ((solder or	USPAT;	2004/03/29
		interconnection or interconnect or ball	EPO; JPO;	14:18
		or bump) with (fatigue or stress or	DERWENT;	
		expansion or contraction))	IBM TDB	
28	629	(438/\$.ccls. and ((solder or	USPAT;	2004/03/29
		interconnection or interconnect or ball	EPO; JPO;	14:19
		or bump) with (fatigue or stress or	DERWENT;	
		expansion or contraction))) and mask	IBM TDB	

L Number	Hits	Search Text	DB	Time stamp
1	1	("6218291").PN.	USPAT	2004/03/29
2	1	("6218281").PN.	USPAT	2004/03/29
3	2	(("6211937") or ("5872404")).PN.	USPAT	2004/03/29 12:43
4	2	(("6118182") or ("6194667")).PN.	USPAT	2004/03/29 13:18
5	6174	(pad or pads) with (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110)	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 14:02
6	242	((pad or pads) with (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110)) and ((solder or interconnection or interconnect or ball or bump) with (stress or expansion or contraction))	USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:00
7	25	5523920.URPN.	USPAT	2004/03/29 13:57
8	15	("3189978" "3192086" "3716907" "4336551" "5075965" "5187020" "5282565" "5291374" "5311404" "5316788" "5329068" "5357060" "5383093" "5400221" "5400950").PN.	USPAT	2004/03/29 13:57
9	70		USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:17
10	12	257/118.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110)	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 14:02
11	154	257/778.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 14:12
12	1	6118182.URPN.	USPAT	2004/03/29
13	6	("5001829" "5444303" "5471090" "5477082" "5531021" "5784262").PN.	USPAT	2004/03/29
14	127	257/738.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or	USPAT; EPO; JPO; DERWENT;	2004/03/29 14:11
15	73	expansion or contraction) (257/738.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)) not (257/778.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction))	IBM_TDB USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:19
16	50	•	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 14:09
17	151	257/737.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 14:09
18	91	(257/737.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)) not (257/778.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction))	USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:09

Page 1

Search History 3/29/04 2:19:38 PM

L Number	Hits	Search Text	DB	Time stamp
1	1	("6218291").PN.	USPAT	2004/03/29 12:25
2	1	("6218281").PN.	USPAT	2004/03/29
3	2	(("6211937") or ("5872404")).PN.	USPAT	12:30 2004/03/29 12:43
4	2	(("6118182") or ("6194667")).PN.	USPAT	2004/03/29
5	6174	(pad or pads) with (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110)	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 14:02
6	242	((pad or pads) with (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110)) and ((solder or interconnection or interconnect or ball or bump) with (stress or expansion or contraction))	USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:00
7	25	5523920.URPN.	USPAT	2004/03/29 13:57
8	15	("3189978" "3192086" "3716907" "4336551" "5075965" "5187020" "5282565" "5291374" "5311404" "5316788" "5329068" "5357060" "5383093" "5400221" "5400950").PN.	USPAT	2004/03/29 13:57
9	70	((pad or pads) with (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110)) and ((solder or interconnection or interconnect or ball or bump) with (fatigue))	USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:17
10	12		USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:02
11	154	257/778.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 14:12
12	1	6118182.URPN.	USPAT	2004/03/29 14:05
13	6	("5001829" "5444303" "5471090" "5477082" "5531021" "5784262").PN.	USPAT	2004/03/29
14	127	257/738.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or	USPAT; EPO; JPO; DERWENT;	2004/03/29 14:11
15	73	expansion or contraction) (257/738.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)) not (257/778.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction))	IBM_TDB USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:19
16	50	257/734.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 15:15
17	151	257/737.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)	USPAT; EPO; JPO; DERWENT; IBM TDB	2004/03/29 14:09
18	91	(257/737.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction)) not (257/778.ccls. and (mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or expansion or contraction))	USPAT; EPO; JPO; DERWENT; IBM_TDB	2004/03/29 14:09

				Y
19	95	257/780.ccls. and (mask or nonwettable or	USPAT;	2004/03/29
		nonwet or (non adj wettable)) and (@ad<19991110) and (fatigue or stress or	EPO; JPO;	14:11
		expansion or contraction)	DERWENT; IBM TDB	
20	60	(257/780.ccls. and (mask or nonwettable	USPAT;	2004/03/29
20		or nonwet or (non adj wettable)) and	EPO; JPO;	14:11
		(@ad<19991110) and (fatigue or stress or	DERWENT;	
		expansion or contraction)) not	IBM TDB	
		(257/778.ccls. and (mask or nonwettable	_	
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction))		00004/00/00
21	101376	(@ad<19991110) and ((fatigue or stress or	USPAT;	2004/03/29
		expansion or contraction) with (direction	EPO; JPO;	14:14
		or align or aligned or oriented or orient or position or positioned))	DERWENT; IBM TDB	in the second se
22	137	((@ad<19991110) and ((fatigue or stress	USPAT;	2004/03/29
22	13,	or expansion or contraction) with	EPO; JPO;	14:15
		(direction or align or aligned or	DERWENT;	11120
		oriented or orient or position or	IBM TDB	
		positioned))) and ((pad or pads) with	_	
		(mask or nonwettable or nonwet or (non		
		adj wettable)) and (@ad<19991110))		
23	131	(((@ad<19991110) and ((fatigue or stress	USPAT;	2004/03/29
		or expansion or contraction) with	EPO; JPO;	14:15
		(direction or align or aligned or	DERWENT;	
		oriented or orient or position or	IBM_TDB	
		positioned))) and ((pad or pads) with (mask or nonwettable or nonwet or (non		
		adj wettable)) and (@ad<19991110))) not		
		(257/778.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction))		
24	136	(((@ad<19991110) and ((fatigue or stress	USPAT;	2004/03/29
		or expansion or contraction) with	EPO; JPO;	14:15
		(direction or align or aligned or	DERWENT;	
		oriented or orient or position or	IBM_TDB	
		positioned))) and ((pad or pads) with		
		(mask or nonwettable or nonwet or (non adj wettable)) and (@ad<19991110))) not		
		((257/737.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
	}	(@ad<19991110) and (fatigue or stress or		
		expansion or contraction)) not		
		(257/778.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
	1	(@ad<19991110) and (fatigue or stress or		
		expansion or contraction)))		
25	130	((((@ad<19991110) and ((fatigue or stress	USPAT;	2004/03/29
		or expansion or contraction) with	EPO; JPO;	14:15
		(direction or align or aligned or oriented or orient or position or	DERWENT; IBM TDB	
		positioned))) and ((pad or pads) with	TDIJ-IDD	
		(mask or nonwettable or nonwet or (non		
		adj wettable)) and (@ad<19991110))) not		
		(257/778.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction))) not		
		((257/737.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction)) not (257/778.ccls. and (mask or nonwettable		
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction)))		
26	1500		USPAT;	2004/03/29
		interconnection or interconnect or ball	EPO; JPO;	15:22
		or bump) with (fatigue or stress or	DERWENT;	
		expansion or contraction))	IBM_TDB	

27	1500	438/\$.ccls. and ((solder or	USPAT;	2004/03/29
		interconnection or interconnect or ball	EPO; JPO;	14:18
		or bump) with (fatigue or stress or	DERWENT; IBM TDB	
28	629	expansion or contraction)) (438/\$.ccls. and ((solder or	USPAT;	2004/03/29
20	629	interconnection or interconnect or ball	EPO; JPO;	14:19
		or bump) with (fatigue or stress or	DERWENT;	
		expansion or contraction))) and mask	IBM TDB	
29	613	((438/\$.ccls. and ((solder or	USPAT;	2004/03/29
	0.20	interconnection or interconnect or ball	EPO; JPO;	14:19
		or bump) with (fatigue or stress or	DERWENT;	*
		expansion or contraction))) and mask) not	IBM TDB	
		(257/778.ccls. and (mask or nonwettable	_	
		or nonwet or (non adj wettable)) and		
		(@ad<19991110) and (fatigue or stress or		
		expansion or contraction))		
30	1296	((mask or nonwettable or nonwet or (non	USPAT;	2004/03/29
		adj wettable)) same (elliptical or oblong	EPO; JPO;	15:30
		or oval)) and (@ad<19991110)	DERWENT;	
		1,11	IBM_TDB	2004/02/20
31	141	(((mask or nonwettable or nonwet or (non	USPAT;	2004/03/29 15:22
		adj wettable)) same (elliptical or oblong	EPO; JPO;	15:22
		or oval)) and (@ad<19991110)) and (pad or pads)	DERWENT; IBM TDB	
32	4509	((fatigue or stress or expansion or	USPAT;	2004/03/29
32	4309	contraction) same (elliptical or oblong	EPO; JPO;	15:22
		or oval)) and (@ad<19991110)	DERWENT;	
		or stary, and (each respective)	IBM TDB	
33	1041	(((fatigue or stress or expansion or	USPAT;	2004/03/29
-		contraction) same (elliptical or oblong	EPO; JPO;	15:23
		or oval)) and (@ad<19991110)) and (pad	DERWENT;	
		or pads or ball or bump or bumps or balls	IBM_TDB	
		or interconnect or interocnnetion or		
1	1	solder)		
34	337	((((fatigue or stress or expansion or	USPAT;	2004/03/29
		contraction) same (elliptical or oblong	EPO; JPO;	15:34
		or oval)) and (@ad<19991110)) and (pad	DERWENT;	
•		or pads or ball or bump or bumps or balls or interconnect or interconnection or	IBM_TDB	
		solder)) and (pad or pads)		
35	333	(((((fatigue or stress or expansion or	USPAT;	2004/03/29
		contraction) same (elliptical or oblong	EPO; JPO;	15:24
		or oval)) and (@ad<19991110)) and (pad	DERWENT;	
:		or pads or ball or bump or bumps or balls	IBM_TDB	
 	i	or interconnect or interocnnetion or		
		solder)) and (pad or pads)) not ((((mask		
		or nonwettable or nonwet or (non adj		
		wettable)) same (elliptical or oblong or		
		oval)) and (@ad<19991110)) and (pad or		
36	2/11	pads)) ((mask or nonwettable or nonwet or (non	USPAT;	2004/03/20
30	341	adj wettable)) with ((holes or openins or	EPO; JPO;	2004/03/29 15:33
		opening or gap or gaps or space or	DERWENT;	13.33
		spaces) and (elliptical or oblong or	IBM TDB	
		oval))) and (@ad<19991110)		
37	341	(((mask or nonwettable or nonwet or (non	USPAT;	2004/03/29
		adj wettable)) with ((holes or openins or	EPO; JPO;	15:33
		opening or gap or gaps or space or	DERWENT;	
1		spaces) and (elliptical or oblong or	IBM_TDB	
		oval))) and (@ad<19991110)) not	•	
]		(((((fatigue or stress or expansion or		
		contraction) same (elliptical or oblong		
		or oval)) and (@ad<19991110)) and (pad		
		or pads or ball or bump or bumps or balls or interconnect or interocnnetion or		
		solder)) and (pad or pads)) not (((mask		
1	1			1
		or nonwettable or nonwet or (non adi		
		or nonwettable or nonwet or (non adj wettable)) same (elliptical or oblong or		
		or nonwettable or nonwet or (non adj wettable)) same (elliptical or oblong or oval)) and (@ad<19991110)) and (pad or		

38	39	((((mask or nonwettable or nonwet or (non	USPAT;	2004/03/29
		adj wettable)) with ((holes or openins or	EPO; JPO;	15:34
		opening or gap or gaps or space or	DERWENT;	
		spaces) and (elliptical or oblong or	IBM TDB	:
		oval))) and (@ad<19991110)) not	_	
		(((((fatigue or stress or expansion or		
	1	contraction) same (elliptical or oblong		
		or oval)) and (@ad<19991110)) and (pad		
		or pads or ball or bump or bumps or balls		
		or interconnect or interocnnetion or		
		solder)) and (pad or pads)) not ((((mask		
		or nonwettable or nonwet or (non adj		
		wettable)) same (elliptical or oblong or		
		oval)) and (@ad<19991110)) and (pad or		
		pads)))) and (pad or pads)		